



SPICEWOOD SPRINGS ROAD LOW WATER CROSSING #1 BRIDGE REPLACEMENT

PROJECT SUMMARY

Need for the Project

The existing low water crossing (LWC) #1 on Spicewood Springs Road overtops after relatively brief rainfall events, requiring closure of the road to local traffic, which limits access to residences along the road and in the vicinity.

Project Objectives

- Design a new bridge and approaches that eliminates the overtopping of the roadway at LWC #1
- Incorporate current roadway safety features into the design of the bridge and approaches
- Limit disturbance to the surrounding property and environment

Alternatives Under Consideration

Three bridge replacement alternatives were developed to address the project objectives. All alternatives include two 11-foot-wide travel lanes, two 5-foot-wide shoulders, and 1-foot-wide guardrails. The construction traffic control requirements and proposed roadway alignments for each bridge alternative are described below:

Alternative 1 (full closure of the existing low water crossing)

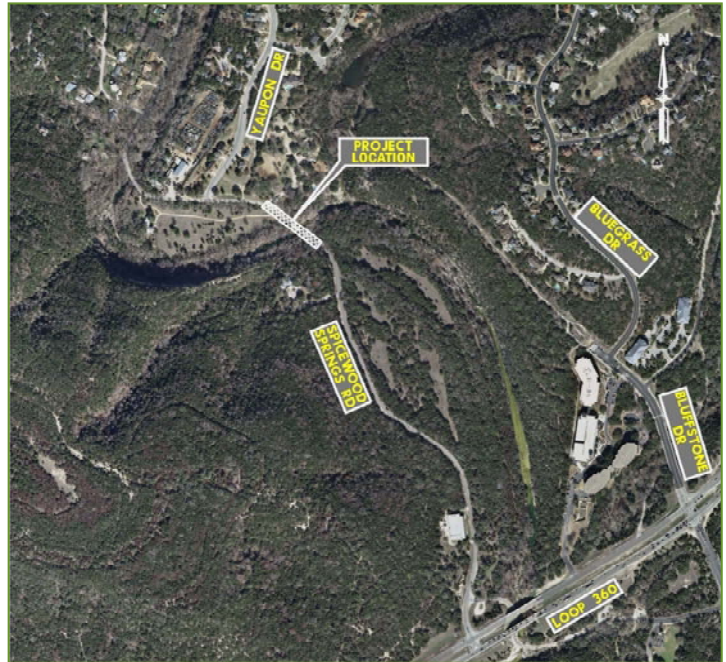
- The existing LWC would be fully closed and removed.
- The new bridge would be constructed during closure.
- The new roadway alignment would closely match the existing roadway alignment.

Alternative 2 (partial closure of the existing low water crossing)

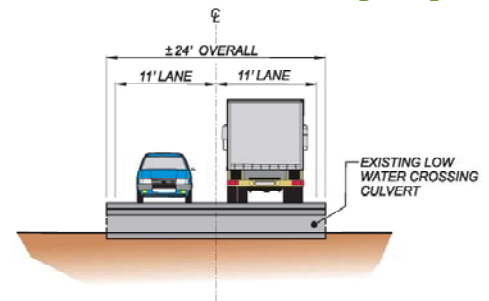
- One lane of the existing LWC would remain open with temporary traffic controls while one lane of the new bridge is constructed.
- Traffic would be shifted to the new one-lane bridge while the remaining LWC lane is removed.
- The second lane of the new bridge would be constructed.
- The new roadway alignment would be shifted southwest but should remain within the existing right-of-way (ROW). (Note: one travel lane would remain open at all times.)

Alternative 3 (existing low water crossing remains open)

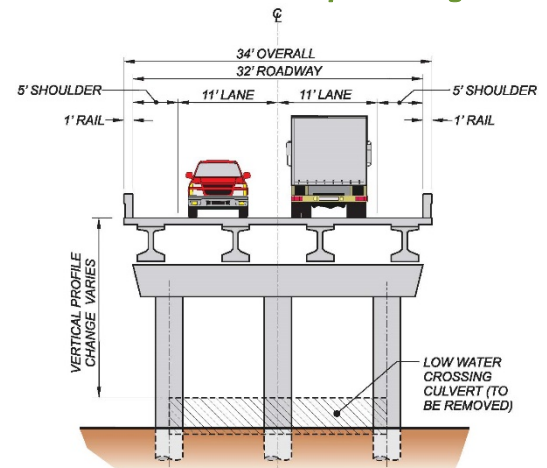
- The new bridge would be constructed on a new alignment (shifted southwest) and would require purchase of ROW.
- Once construction is completed, traffic would be shifted to the new bridge and the existing LWC removed.



Existing configuration



Proposed configuration





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ALTERNATIVES EVALUATION MATRIX

Parameter	Unit of Measurement	No-Build Alternative (Do nothing)	Alternative 1 (Full Closure)	Alternative 2 (Partial Closure)	Alternative 3 (Fully Phased)
Project Requirements					
Meets Project Objectives	Yes/No	No	Yes	Yes	Yes
Functionally Obsolete	Yes/No	Yes	No	No	No
Satisfies 500-Year Flood Requirement	Yes/No	No	Yes	Yes	Yes
Project Specifics					
Additional ROW Required	Yes/No	N/A	No	No	Yes
Adjacent Driveways/Parcels Affected	Yes/No	N/A	Yes	Yes	Yes
Design Speed	mph	25	25	30	35
Construction					
Estimated Construction Cost	\$ (Millions)	N/A	3.2	4.1	3.6
Estimated Construction Duration	Months	N/A	7	11	8
Traffic Control	Type	N/A	Full Closure	1-Way Closure	Phased Construction
Detour Required	Yes/No	N/A	Yes	Yes	No
Environmental					
Probability to Encounter Archeological Sites	Low/ Medium/ High	N/A	High	High	High
Threatened/Endangered Species Potential Habitat	Low/ Medium/ High	N/A	Low	Medium	High
Wetland Impacts	ac/ LF	N/A	Low	High	High
Potential to Impact Trees	Low/ Medium/ High	N/A	Low	Medium	High

Note: N/A – Not applicable